

**Iowa Department of Natural Resources  
Operator Certification**

**Issuing Agency  
CEU Policy and Procedures Guide**

**Prepared by the IDNR  
in cooperation with  
Iowa Joint Operator Certification  
and Training Coordination Committee**

**December 17, 2003**

## **IDNR CEU Policy and Procedures Guide**

Introduction

Organization of the Issuing Agency  
Board or Executive Committee  
Education Committee  
Program Committee  
CEU Administrator

Program Development Procedure

Course Development, Content and Integrity

Coding

Program Package

Attendance Verification

Responsibility of Issuing Agency

Responsibility of Recording Agency

Web-based Training

Compliance

Issuing Agency Application Process

Sample Issuing Agency Agreement

Sample Issuing Biennial Report

Appendices

- A. Meeting CEU Quality Standards as per IACET
- B. Examples of One-Day, One-Track Programs
- C. Example of a Multi-Day, Multi-Track Program
- D. Examples of Program Objective, Outline, and Bio Sketch
- E. Examples of Sign-in Sheets
- F. Examples of Attendance Rosters
- G. IDNR Approved CEU Course Guidance Lists
- H. IDNR Electronic Reporting Format

## **Introduction**

In 1977 legislation was enacted to require operators of water and wastewater systems to obtain continuing education to renew their certification. The intent was to aid operators in the retention of their primary operating skills and knowledge and to promote continued growth in their professional field. The Iowa Department of Natural Resources (IDNR) is responsible for assuring compliance with this legislative intent. To aid in this process, Chapter 81 Iowa Administrative Code (IAC) IAC offers the Issuing Agency as a professional, technical/educational organization authorized by the IDNR Operator Certification program to provide continuing education for certification renewal or upgrade in accordance with the commitments and guidelines detailed in the written issuing agency agreement and procedures. An Issuing Agency enters into a written agreement with the IDNR to provide a quality instructional experience, including adequate planning, capable direction, and qualified instructors to meet specific education/training goals. In return, the IDNR agrees to accept CEUs submitted by the Issuing Agency in fulfillment of the continuing education requirement for certification renewal and upgrade.

To enter into this agreement, the potential Issuing Agency is required to submit a document describing its intended procedures for providing Continuing Education Units (CEUs). Once the IDNR has approved the procedures, an Issuing Agency Agreement is signed between the two parties. The purpose of this document is to provide guidance to potential issuing agencies on the development and administration of these procedures.

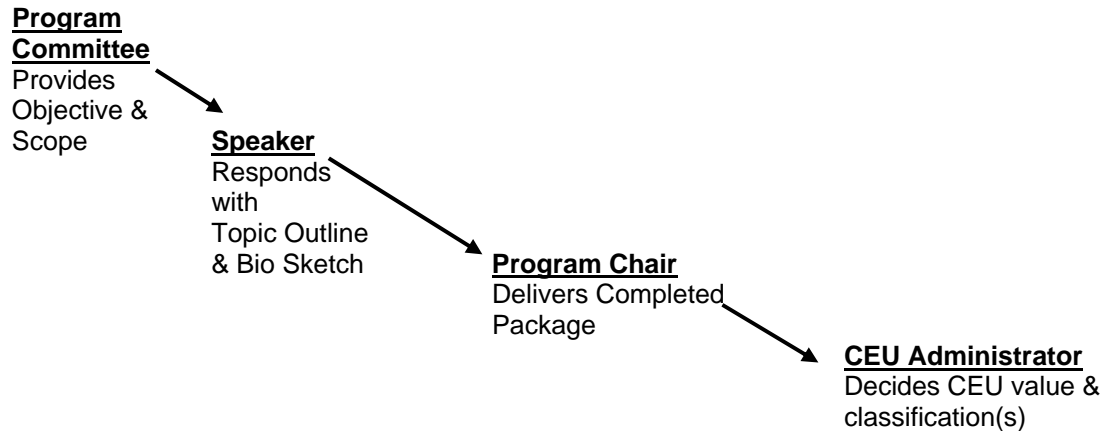
## **Organization of the Issuing Agency**

For an Issuing Agency to comply with the quality standards and commitments of the agreement, it needs an organizational structure to cover a broad range of responsibilities.

- Board or Executive Committee – The Board or Executive Committee of the organization retains overall responsibility for activities as an Issuing Agency, guided by the recommendations of the Education Committee. The Board or Executive Committee conducts the biennial review and approves and submits the summary of the accomplishments of the Issuing Agency's CEU program to the IDNR.
- Education Committee – The Education Committee provides capable direction to include leadership in program planning and developing the training programs which may include advising local program committees on CEU procedures and compliance. This group has the responsibility for overview or determination of CEU accreditation. Biennially they prepare a summary of the evaluations of accredited training by addressing whether the training met desired goals, learning outcomes and quality standards of *International Association for Continuing Education and Training* (IACET). They also review the Issuing Agency Agreement and prepare a summary of the accomplishments of the program.
- Program Committee – The Program Committee is responsible for identifying topics to be presented, selecting speakers, and arranging the time schedule.
- CEU Administrator – The CEU Administrator may be the chair of the Education Committee or another individual designated to perform this important function. This individual will evaluate the program content in terms of CEU quality standards, whether or not directly related, how much credit may be awarded, and for which classification(s).

A statement by the CEU Administrator certifying the CEU credit hours shall be included in the package sent to the Recording Agency after the program has been held.

### **Program Development Procedure**



### **Course Development, Content And Integrity**

An Issuing Agency must take the responsibility for program content and integrity.

The Program Committee, as a group, will usually have a good sense of what topics are timely and of interest to the target audience. They should naturally focus on topics that are consistent with the target audience input and are eligible for CEU credits. There is no prohibition against including non-related topics on a program; however, no CEU credit will be awarded for non-related topics. Attached is a list of possible Approved Topics and Not Approved Topics developed by the Iowa Joint Operator Certification and Training Coordination Committee. (Appendix G.)

An Objective statement, a short statement of what the participant should learn, should be written for each topic. This will also help select a speaker and determine the content for the speaker.

The speaker should then be given the objective and scope of the topic along with the following: methods to be used in presenting the information, description of the targeted audience, and the time allotted to cover the material. In return, the speaker should provide in writing to the program chair an outline of the material to be covered and a bio sketch. See Appendix D for example.

This process will ensure compliance with IACET's requirement that the material presented must meet the needs of the target audience and be presented by a qualified instructor. Without the outline and biosketch in hand, the CEU Administrator sees only a title and cannot judge eligible credit. CEU quality standards, as per IACET, are detailed in Appendix A.

## **Coding**

Coding refers to the certification classifications recognized by the IDNR for water and wastewater. For the public water supply program there are three classifications: water treatment (WT), water distribution (WD), and Grade A (GA). For wastewater there are two classes: wastewater treatment (WWT) and wastewater lagoon (WWL).

- A one-day, one-track program devoted to a single classification should be coded for that classification; for example, WD or WWT. Individual topics need not be coded.
- A **balanced** regional meeting, should be coded to allow for a choice. For example, a good regional meeting would have one course for treatment and one for distribution. See Appendix B for examples of regional programs for either water or wastewater.
- A multi-track program must have each individual topic coded. Although some topics may be eligible for credit in more than one classification, they can only be given credit toward one classification. See Appendix C for an example of a multi-track program.

**For example,** A 2 hour course on Chlorine / Disinfection / Breakpoint curve, eligible for 0.2 CEU credit, may be coded:

Options	WT credit	WD credit
Option #1	0.2	0
Option #2	0	0.2
Option #3	0.1	0.1

Note: WT and WD may not both be credited 0.02. This is commonly referred to as “double-dipping” and is not acceptable.

## **Program Package**

The Program Package, provided by the Program Chair, should include the following:

- a brief description of the dates and location of the meeting or training
- the program schedule,
- the topics to be presented,
- time allotments for each topic
- the objective of each presentation
- the speakers for each topic
- the speakers’ qualifications and bio sketch
- a detailed outline of each topic
- a list of the materials and handouts to be presented.

When the package is complete, it is delivered to the CEU Administrator with sufficient lead-time before the program is printed and distributed.

The CEU Administrator reviews the submitted materials and notifies the Program Chair, in writing, of the number and classification of CEUs awarded. This approval is included with the package sent to the Recording Agency following the completion of the program.

## **Attendance Verification**

The purpose of attendance procedures is to verify, to the extent possible, that CEUs are awarded only for actual attendance. The Issuing Agency or training sponsor shall prepare sign-in sheets ahead of time. Pre-registration can be used to prepare a printed alphabetical listing of attendees, with space left at the end of the list for those not pre-registered. When there are multiple tracks, each track must have its own sign-in sheets. The sign-in sheet should clearly show for what classification(s) the session has been approved. Some sessions may be approved for more than one classification. There should also be a statement on the sign-in sheet making it clear that only one classification may be checked. To check more than one may delay or disallow the award of CEUs for that session.

For multi-track and large meetings, sign-in sheets must be distributed and collected during each individual session. Session chairs may find it expedient to hold the sign-in sheets for the last session of the day until the closing moments of that session. For smaller meetings, sign-in sheets may be distributed and collected less often; for example, once during the forenoon and once during the afternoon. An alternative is a monitored check-in before or at the beginning of the program. Attendees who do NOT want CEUs should be instructed NOT to sign in. See Appendix E for an example of a sign-in sheet.

CEU forms provided by the Recording Agency may be filled out and turned in to the registration desk anytime during the program. The participant should be instructed NOT to fill in the number of hours or CEUs earned. That will be calculated later by the Issuing Agency from the sign-in sheets. Multiple CEU forms may be required if the participant is requesting credit in more than one classification. The white copy is retained by the Issuing Agency, and the yellow (carbon) copy should be kept by the participant as a record of attendance. Participants who do NOT want CEUs should be instructed NOT to fill out the CEU forms. The Issuing Agency will then prepare a roster or spreadsheet and enter the participants' attendance as shown on the sign-in sheets.

## **Responsibility of Issuing Agency**

The Issuing Agency shall maintain permanent individual records of CEUs or shall contract with an accredited organization to maintain the records and report the information to the operator and the IDNR.

An attendance roster will be prepared by the Issuing Agency. General information required will include the program name, date, location, course number and the name of the Issuing Agency. Specific information will include name and address of the participant, personal information, utility/organization, and number and classification of CEUs earned. See Appendix F for examples of attendance rosters.

A multiple classification attendance roster will include the same information listed above but designed as a spreadsheet to show individual attendance in each session of each track with summary columns to show the number and classifications of CEUs earned. The Issuing Agency and the Recording Agency may wish to work together to develop a format which works well for both.

The package sent to the Recording Agency shall include the completed roster, the individual CEU forms, and a copy of the program. The Issuing Agency shall also make arrangements for payment of recording fees.

Time is of the essence. Issuing Agencies accept the inherent obligation of getting the attendance roster package to the Recording Agency within two weeks. Failure to do so frustrates all concerned and multiplies the calls asking about credit earned for training.

### **Responsibility of Recording Agency**

It is the responsibility of the Recording Agency to record, in a timely manner, the data sent by the Issuing Agency.

The Recording Agency shall issue each participant a certificate of completion. This certificate should include the:

- participants name
- name of the class
- the date of class
- location of the class
- amount of CEUs awarded
- classification code(s) of the CEUs awarded.

All relevant information for the individual must be included in the participant's file and the file must be permanently maintained.

Within ninety (90) days of completion of the training and no later than April 15<sup>th</sup> of a renewal year, CEU information must be reported electronically to the IDNR in the specified format. See Appendix H.

### **Web-based Training**

Vendors and training providers wishing to provide web based CEU training will be directed to Kirkwood Community College or Iowa State University. Providers will be required to follow these educational institutions established procedures and standards.

### **Compliance**

An Issuing Agency is responsible for its compliance with its IDNR approved set of procedures. The IDNR reserves the right to audit any or all aspects of the Issuing Agency's program. If at any point the IDNR feels that an Issuing Agency is not fulfilling its obligation to provide a quality instructional experience or is not fulfilling any other aspect of its agreement, the IDNR will notify the Issuing agency both orally and in writing. If compliance cannot be achieved, the IDNR will issue a Letter of Revocation notifying the Issuing Agency that the IDNR will no longer accept CEUs awarded by the Issuing Agency.

### **Issuing Agency Application Process**

Potential Issuing Agencies must submit to IDNR a procedure that documents how they will administer the program. At a minimum the procedure should include the organizational structure, the responsibility of each part of that structure, and the methods used for evaluating and recording CEU training.

Once the IDNR has approved this procedure, an agreement similar to the Draft on pages 9 through 11 will be issued.



**Issuing Agency Agreement  
Between  
Iowa Department of Natural Resources  
And  
(Insert Issuing Agency Name)**

In 1977 legislation was enacted to require operators of water and wastewater systems to obtain continuing education to renew their certification. IAC 567 Chapter 81, for water and wastewater operators, describes the methods by which these requirements are administered by the Iowa Department of Natural Resources. Chapter 81 IAC defines an issuing agency as a professional, technical/educational organization authorized by the IDNR Operator Certification program to provide continuing education for certification renewal or upgrade in accordance with the commitments and guidelines detailed in the written issuing agency agreement and procedures.

\_\_\_\_\_, hereafter referred to as the Issuing Agency, has submitted to IDNR, for review and approval, a document describing its procedures for providing Continuing Education Units (CEUs) to certified operators. The current version of said document is by reference made a part of this Agreement and referred to as Attachment A.

The Issuing Agency, by the signing of this Agreement, commits to provide adequate oversight to ensure a competent instructional experience including adequate planning, capable direction, and qualified instructors to meet specific educational training goals for CEU accreditation.

The IDNR, by the signing of this Agreement, commits to accept the CEUs reported by the Issuing Agency in compliance with this Agreement.

1. CEU Training and Assessment. The Issuing Agency shall ensure that in assigning CEU credit, all training it accredits, whether sponsored or co-sponsored, meets the recognized quality standards of *International Association for Continuing Education and Training (IACET)*. Additionally, it shall be in compliance with the *IDNR Approved CEU Course Guidance Lists*. CEU assessment records shall be kept on file for four years.
2. CEU Award and Training Evaluation. The Issuing Agency shall award CEU credit to only those operators whose attendance has been verified and for only those hours of actual attendance. Attendance records shall be kept on file for four years. The Issuing Agency shall ensure that operators are provided an opportunity to provide input and to evaluate the training. This information shall be considered by the Issuing Agency, acted upon as appropriate, and summarized in a biennial report to IDNR.

3. Recording Agency and CEU Records. The Issuing Agency shall maintain permanent individual records of CEUs or shall contract with an accredited organization to maintain the records and report the information to the operator and IDNR per the attached contract. (Attachment B) Within 90 days of the completion of the training and no later than April 15 of the renewal year, CEU information shall be reported electronically to the IDNR in compliance with the standards specified.
4. Program Evaluation & Renewal. This Agreement shall take effect when signed by both parties and shall continue in effect until suspended or revoked by either party. The Issuing Agency shall report biennially by May 1<sup>st</sup> of odd-numbered years on its activity in a manner similar to Attachment C. This agreement, including the procedures, may be reviewed and amended at that time by agreement of the parties concurrently.
5. Audit. IDNR may, at any time, audit any or all aspects of the Issuing Agency's program.
6. Confidential Information and Security. The Issuing Agency shall be responsible for and take all appropriate steps to guard against the dissemination and release of confidential information to non-authorized people. Confidential information shall be protected during all phases of the CEU training and reporting process. Access shall not be allowed to any unauthorized people or distributed without consent of the IDNR and the operator. More specifically, the Social Security numbers shall be protected from identity theft.
7. Revocation. IDNR shall revoke the acceptance of CEUs submitted by the Issuing Agency if the training they provide does not comply with the provisions of this Agreement. The IDNR will continue to accept CEUs for thirty (30) days following the notice of revocation. If appealed, the Issuing Agency hereby waives all rights to issue CEUs until completion of the appeal process.
8. Severability. Each of the provisions of this Agreement shall be enforceable independent of any other provision of this Agreement and independent of any other claims or cause of action.
9. Indemnification. The Issuing Agency and IDNR shall indemnify, defend, and hold each other harmless against claims of negligence of the other with regard to the terms of this agreement. Said indemnification and defense shall include all reasonable and necessary attorneys' costs and fees incurred in said indemnification.

10. Warranty of Authority to Sign On. The signatories to the Agreement represent and warrant that they have full and complete authority to enter into agreement on behalf of the parties they represent.

This Agreement and its attachments constitute the entire Agreement between the parties respecting the subject matter contained herein and supersedes all previous communication, representations or agreements, whether written or oral, with respect to such subject matter. No representations or statements of any kind, made by any representatives of either party, which are not stated herein, shall be binding on the parties. No addition to or modification of any provision the Agreement shall be binding upon either party unless made in writing and signed by a duly authorized representative of the parties.

Iowa Department of Natural Resources                      (Issuing Agency )

By \_\_\_\_\_  
Wayne Gieselmann, Division Administrator

By \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Attachments:

- Attachment A: Issuing Agency Procedures for CEU Accreditation and Recording
- Attachment B: Recording Agency Agreement (where applicable)
- Attachment C: Biennial Report (Example)

## **Attachment C**

( Organization Name )

### **Issuing Agency Program Biennial Report (example\*)**

**Date:** XX/XX/XX

For the Agreement period of July 1, 2003 through June 30, 2005

**Purpose:** \_To report biennially on the activity, achievements and compliance with this contract and its procedures and the quality standards established by IACET

***The Issuing Agency's report should be a succinct report, tailored to their specific circumstances, activities and accomplishments.***

**Issuing Agency**  
**CEU Policy and Procedures Guide**  
Appendices

## APPENDIX A

### **Meeting CEU Quality Standards as per IACET**

To be valid, a CEU must meet recognized quality standards. The following material is adapted from guidelines issued by the International Association for Continuing Education and Training (IACET). One CEU is defined as follows: ten contact hours of participation in an organized continuing education experience, under responsible, qualified direction and instruction.

- A. Organized Continuing Education Experience. The program must be planned to meet specific needs in terms of knowledge and skills to be gained by the target group to be served and methods to be used. The target group should have opportunity for input.
- B. Under Responsible Sponsorship. The sponsor must assume administrative responsibility for the program and ensure that a permanent CEU record is kept.
- C. Qualified Direction. This includes leadership in program planning and selection of appropriate format to meet the stated objectives.
- D. Qualified Instructors. Instructors should not only be qualified in the subject matter by education/experience, but also have the ability to transmit knowledge and skills to the participants in the context of the stated instructional objectives.
- E. Satisfactory Completion—Attendance. Regular attendance is the minimum requirement for award of CEU credit. If attendance is the only criterion of satisfactory completion, then monitoring and documentation of attendance is necessary to ensure that each participant receives credit for only the instructional hours actually attended.
- F. Post-test or Performance Demonstration. Some institutions also require some form of assessment such as a post-test or hands-on performance demonstration. Such an additional requirement for completion is optional at this time.
- G. Program Evaluation. A program evaluation is mandatory. The purpose of program evaluation is to determine how well each topic or session met the training goals and the intended learning outcomes. The program evaluation form shall be included with the program materials provided to each participant at the beginning of the seminar or conference and shall be turned in following the last session.

**APPENDIX B**  
**Example 1**  
**Regional Water Program**

One-hour Segments

Region 0

CEU Credit. This program has been approved by (Issuing Agency) for 0.5 CEU in **EITHER** Water Treatment (WT) **OR** Water Distribution (WD).

<u>Time</u>	<u>Topic</u>	<u>Credit Hours</u>	<u>CEU</u>
8:00 – 8:40	Registration, Welcome, Coffee and Rolls		
8:40 – 9:20	Miss America or a NASCAR Star	0	0
9:20 – 10:10	Leak Detection	1	0.10
10:10 – 10:20	Break		
10:20 – 11:10	Well O & M	1	0.10
11:10 – 12:00	Coliform Sampling	1	0.10
12:00 – 1:00	Lunch		
1:00 – 1:10	Business Meeting	0	0
1:10 – 2:00	CPR and Work Zone Safety	0	0
2:00 – 2:10	Break		
2:10 – 3:00	Metering and AMR	1	0.10
3:00 – 3:50	Water Treatment Panel Discussion	1	0.10
3:50 – 4:00	CEU Registration and Meeting Evaluation	0	0
	Total	5 hours	0.5 CEU

The program committee should provide an evaluation form for participants to comment on the topics presented and to make suggestions for future program topics.

**APPENDIX B**  
**Example 2**  
**Regional Wastewater Program**

Mixed Time Segments

Region 0

CEU Credit. This program has been approved by (Issuing Agency) for 0.5 CEU in **EITHER** Wastewater Treatment (WWT) **OR** Wastewater Collection (WWC).

<u>Time</u>	<u>Topic</u>	<u>Credit Hours</u>	<u>CEU</u>
8:00 – 8:30	Registration, Welcome, Coffee and Rolls		
8:30 – 9:00	Miss America or a NASCAR Star	0	0
9:00 – 9:30	IDNR Update	0.50	0.05
9:30 – 10:15	Sewer and Manhole Rehabilitation	0.75	0.075
10:15 – 10:30	Break		
10:30 – 11:15	Pumps and Lift Stations	0.75	0.075
11:15 – 12:00	New Treatment Methods	0.75	0.075
12:00 – 1:00	Lunch		
1:00 – 1:15	Business Meeting	0	0
1:15 – 2:00	CPR and Workplace Safety	0	0
2:00 – 2:15	Break		
2:15 – 3:00	Biosolids	0.75	0.075
3:00 – 4:00	Lagoon Panel Discussion	1.00	0.10
4:00 – 4:30	Open Channel Flow Measurement	0.50	0.05
4:30 – 4:40	CEU Registration and Meeting Evaluation	0	0
	Total	5 hours	0.5 CEU

The program committee should provide an evaluation form for participants to comment on the topics presented and to make suggestions for future program topics.



## AWWA/WPCA Spring Short Course ~ April 29-30, 2003 ~ West Des Moines, Iowa

**CEU Instructions:** On this sheet you may track for your records which Programs you Signed-Up for when you registered, and Signed-In for when attending, plus the CEUs you claim. (\*\*Please do not sign-in if you are not claiming CEUs!) ~ CEUs are tracked per Program in the categories of Water Distribution (WD), Water Treatment (WT), and/or Wastewater (WW). ~ To claim CEUs, you must Sign-In for each Program you attend, AND specify the one category to which you want all your CEUs for that Program to be applied. ~ In addition, you must turn in the White copy of the Kirkwood CEU form - by lunch on your first day of attendance, or no later than the end of your last day at the Short Course. ~ Note: You **MUST** claim a CEU category for each Program, even if only one is available, and the CEU categories you claim on Program Sign-In sheets are permanent and cannot be changed. ~ \*\*Be sure to read more detailed instructions in your registration packet at the Short Course! CEU procedures are always subject to change.

## ~ TUESDAY ~ APRIL 29, 2003 ~

Signed Up? / In?	Joint Sessions ~ BENTON for #1 & #2 ~ WOODBURY for #3		CEUs Available			CEUs Claimed		
			WD	WT	WW	WD	WT	WW
/	9:15-10:15	(1) Lockout-Tagout Safety Training ~ BENTON	0.1	0.1	0.1			
/	10:45-11:45	(2) DNR Update ~ BENTON	0.1	0.1	0.1			
/	10:45-11:45	(3) DNR Water Supply Update ~ WOODBURY	0.1	0.1	0			n/a
Signed Up? / In?	Fundamental Water Programs ~ BENTON		CEUs Available			CEUs Claimed		
			WD	WT	WW	WD	WT	WW
/	12:45-1:45	(4) Chlorine/Disinfection/Breakpoint Curve	0.1	0.1	0			n/a
/	1:45-2:45	(5) Groundwater Corrosion Control & Iron Sequestering	0.1	0.1	0			n/a
/	3:00-4:00	(6) Glass Face Pump Demonstration - "How a Pump Works"	0.1	0.1	0.1			
Signed Up? / In?	Intermediate Water Programs ~ HANCOCK		CEUs Available			CEUs Claimed		
			WD	WT	WW	WD	WT	WW
/	12:45-1:45	(7) Basic Instrumentation & Control	0.1	0.1	0.1			
/	1:45-2:45	(8) Control/SCADA System Design & Security Issues	0.1	0.1	0.1			
/	3:00-4:00	(9) Ion Exchange Options for Water Treatment	0	0.1	0	n/a		n/a
Signed Up? / In?	Wastewater Session A ~ SHELBY		CEUs Available			CEUs Claimed		
			WD	WT	WW	WD	WT	WW
/	12:45-1:45	(10) CEU Update	0.1	0.1	0.1			
/	1:45-2:45	(11) Backflow Prevention Devices - Types, Usages, and Testing	0.1	0.1	0.1			
/	3:00-4:00	(12) Traffic Control Safety	0.1	0	0.1		n/a	
Signed Up? / In?	Wastewater Session B ~ WOODBURY		CEUs Available			CEUs Claimed		
			WD	WT	WW	WD	WT	WW
/	12:45-1:45	(13) Chemicals for Grease & Odor Control - Panel Discussion	0	0	0.1	n/a	n/a	
/	1:45-2:45	(14) What Does Your Wastewater Testing Mean?	0	0	0.1	n/a	n/a	
/	3:00-4:00	(15) A Good First Step in I/I Removal, Smoke Testing	0	0	0.1	n/a	n/a	
TOTALS for Tuesday, April 29, 2003:								

## ~ WEDNESDAY ~ APRIL 30, 2003 ~

Signed Up? / In?	Fundamental Water Programs ~ BENTON		CEUs Available			CEUs Claimed		
			WD	WT	WW	WD	WT	WW
/	8:30-9:30	(16) Proper Bacteriological Sampling Procedures & Review of Total Coliform Rule	0.1	0.1	0			n/a
/	10:00-11:00	(17) Understanding Water Quality Complaints & Their Causes	0.1	0.1	0			n/a
/	11:00-12:00	(18) Basic Well Water Treatment	0.1	0.1	0			n/a
/	1:00-2:00	(19) Well Maintenance	0.1	0.1	0			n/a
/	2:00-3:00	(20) Fundamental Operations Math	0.1	0.1	0.1			
Signed Up? / In?	Intermediate Water Programs ~ HANCOCK		CEUs Available			CEUs Claimed		
			WD	WT	WW	WD	WT	WW
/	8:30-9:30	(21) Meters! Because That's Where the Money Is	0.1	0	0		n/a	n/a
/	10:00-11:00	(22) Water System Record Keeping	0.1	0.1	0			n/a
/	11:00-12:00	(23) Database Integration & GIS Mapping	0.1	0.1	0.1			
/	1:00-2:00	(24) Distribution System Flushing	0.1	0	0		n/a	n/a
/	2:00-3:00	(25) Iowa Aquifers - Quality and Quantity	0.1	0.1	0			n/a
Signed Up? / In?	Wastewater Session A ~ SHELBY		CEUs Available			CEUs Claimed		
			WD	WT	WW	WD	WT	WW
/	8:30-9:30	(26) Vulnerability Self-Assessment for Wastewater Treatment Facilities	0	0	0.1	n/a	n/a	
/	10:00-11:00	(27) pH Probes - Use, Calibration & Maintenance	0	0.1	0.1	n/a		
/	11:00-12:00	(28) Gas Monitors - Selection, Maintenance & Calibration	0.1	0.1	0.1			
/	1:00-2:00	(29) Water Quality Standards Revisions	0	0	0.1	n/a	n/a	
/	2:00-3:00	(30) Biological Nutrient Removal in Las Vegas, Nevada	0	0	0.1	n/a	n/a	
Signed Up? / In?	Wastewater Session B ~ WOODBURY		CEUs Available			CEUs Claimed		
			WD	WT	WW	WD	WT	WW
/	8:30-9:30	(31) Raw Wastewater Screening Technologies	0	0	0.1	n/a	n/a	
/	10:00-11:00	(32) Evaluating Clarifier Performance	0	0	0.1	n/a	n/a	
/	11:00-12:00	(33) Troubleshooting Activated Sludge Problems - Part I - LECTURE	0	0	0.1	n/a	n/a	
/	1:00-2:00	(34) Troubleshooting Activated Sludge Problems - Part II - GROUP EXERCISES	0	0	0.1	n/a	n/a	
/	2:00-3:00	(35) Disinfection Alternatives	0	0	0.1	n/a	n/a	
TOTALS for Wednesday, April 30, 2003:								

GRAND TOTALS:

# APPENDIX D (Example 1)

## ~ SPEAKER INFORMATION FORM ~

AWWA/IWPCA Spring Short Course ~ April 27-28, 2004

Speakers, please return this ~ no later JANUARY 9, 2004 ~ to the Liaison below:

Education Committee Liaison's Name: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

**SPEAKER:** Please indicate your name *as you wish it to appear on your name badge*

First name \_\_\_\_\_ Last name \_\_\_\_\_

Company \_\_\_\_\_ Title \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_ E-mail \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Program TRACK(s) \_\_\_\_\_ TITLE of Presentation(s) \_\_\_\_\_

DAY/DATE of Presentation(s) \_\_\_\_\_ TIME of Presentation(s) \_\_\_\_\_

### **BIOGRAPHICAL SKETCH**

(Use separate page for additional space. Bio can also be emailed to [info@awwa-ia.org](mailto:info@awwa-ia.org).)

### **HAND-OUTS ARE APPRECIATED**

Attendees have mentioned that they really appreciate handouts to jot notes on during your presentation (example: Power Point outlines or notes, etc.). Please indicate if you will be preparing hand-outs: ☐ Yes ☐ No

Call Gigi at AWWA at 515-283-2169 around April 20, 2004 for an estimate of the number of handouts needed for your presentation. If you need reimbursement for duplicating costs, please turn in your receipt *no later than the day of your presentation* to the people at the registration desk. AWWA/IWPCA will reimburse you for basic 8 1/2" x 11" black & white copies up to \$0.20 per page.

### **AUDIO-VISUAL NEEDS**

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Lectern with standing microphone           | <input type="checkbox"/> Dry Erase Board & Markers | <input type="checkbox"/> Flip Chart & Markers |
| <input type="checkbox"/> Overhead Transparencies Projector & Screen | <input type="checkbox"/> Slide projector & screen  | <input type="checkbox"/> VCR & Monitor        |

<input type="checkbox"/> Please check here if <b>NO</b> PowerPoint equipment will be used. ( <i>Otherwise, please list needs for <u>Both</u> laptop + projector.</i> )  <input type="checkbox"/> Please check here if you do <b>NOT</b> need us to provide you <b>ANY</b> A-V equipment.	<input type="checkbox"/> I will bring my own PowerPoint projector, <b>AND</b> will bring my own laptop computer w/PowerPoint <i>Recommended - For compatibility &amp; your ease/familiarity of use. Screen and audio-visual cart will be provided.</i> <i>If you are <u>not</u> bringing <b>BOTH</b> your own PowerPoint projector <b>AND</b> laptop computer, please check <u>one</u> below:</i> <input type="checkbox"/> Please provide a PowerPoint projector. I will bring my own laptop computer ( <i>Recommended</i> ) <input type="checkbox"/> Please provide a <u>laptop</u> w/PowerPoint I will bring my own projector. ( <i>Laptop software &amp; controls unsure</i> ) <input type="checkbox"/> Please provide <b>BOTH</b> laptop computer & projector for Power Point. I will bring file on CD-ROM.
Additional Requirements/Remarks: _____	



**APPENDIX D (Example 2)**  
**Program Objective, Outline, and Bio Sketch**

Topic: **UV Disinfection of Drinking Water** – by Steve Jones

Time: 1 hour

Objective: ***(Developed by the Program Committee member responsible for confirming the speaker)***

The learning objective for this topic is to increase the participants' knowledge of drinking water disinfection utilizing ultra-violet (UV) light. Individuals will be introduced to the basic physical/chemical functioning of the UV disinfection process, typical equipment configurations, process control and instrumentation, and routine maintenance.

Outline: ***(Developed by the confirmed speaker and returned to Program Committee chair. There should be sufficient detail in the outline/description to demonstrate that the content will meet the Program Committee's objective for the presentation.)***

**UV Disinfection of Drinking Water**

1. Basic physics and chemistry of the UV disinfection process
  - a. UV light and wavelength spectrum
  - b. Quantifying/measuring UV light intensity
  - c. Disinfection efficacy (contact time, light intensity, wavelength)
2. Types of UV disinfection systems
  - a. Low/medium/high-pressure UV lamp systems
  - b. Process configuration
  - c. Installation and maintenance of UV lamps
  - d. Sizing of equipment
  - e. Power requirements
3. Process control
  - a. Control of contact time
  - b. Process control measurements (light intensity)
  - c. Quality control testing (turbidity, bacteriological sampling – TC and HPC)
  - d. Troubleshooting
4. Maintenance
  - a. Lamp replacement (costs and frequency)
  - b. Cost of operation

**Biographical Information: (Provided to demonstrate that the instructor is qualified by education/experience in the subject matter)**

Steve Jones is an Extension Specialist with ISU Engineering Extension. He has a B.S. Degree in Fisheries and Wildlife Biology and an M.S. Degree in Sanitary Engineering, both from Iowa State University. He has had operating experience and is also a licensed P.E. Steve has taught the Water and Wastewater Basic Training Course to thousands of Iowa operators and has made presentations in professional conferences and seminars on a wide variety of topics, such as resource management, water and wastewater operation and maintenance, and associated topics.

**APPENDIX E**  
**Example 1**  
**Short Course Sign-in**

<b>Program # &amp; Title:</b> (33) Directional Drilling Under Clear Lake			<b>Program Track:</b> Wastewater Operations Programs			
<b>Date &amp; Date:</b> Wednesday, September 11, 2002			<b>CEUs Available:</b> Specify ONE category of CEUs for this Program among Water Distribution (WD), Water Treatment (WT), or Wastewater (WW).		<b>CEUs Available:</b>	
<b>Time Span:</b> 1:00 – 2:00					<b>WD</b>	<b>WT</b>
					<b>0.1</b>	<b>n/a</b>
#	<b>Your Name</b> (If your name is <u>not</u> already listed, add you name PRINTED to the end of this list.)	<b>Your Signature</b> <b>Do <u>NOT</u> sign in if you aren't claiming CEUs!</b>	<b>Check a Category:</b>			
			<b>WD</b>	<b>WT</b>	<b>WW</b>	
1	Laura			n/a		
2	Lance			n/a		
3	Danny			n/a		
4	Michael			n/a		
5	Virgil			n/a		
6	Ed			n/a		
7	Fred			n/a		
8	Gordon			n/a		
9	James			n/a		
10	Jeff			n/a		
11	Joe			n/a		
12	Deb			n/a		
13	Timothy			n/a		
14	Jerry			n/a		
15	Marlando			n/a		
16	Paul			n/a		
17	Charles			n/a		
18	Brent			n/a		
19	La Donna			n/a		
20	Patrick			n/a		

**APPENDIX F**  
**Example 1**  
**One-day, One-track Attendance Roster**

First Name	Last Name	City/Utility	Address	City	State	Zip	CEUs	
							WT	WD
John	Wayne	WDM WW	P.O. Box 65610	W. Des Moines	IA	50265	0.5	
Tom	Cruise	Winterset Mun. Util.	3301 Cedar Bridge	Winterset	IA	50273	0.5	
Joan	Crawford	Des Moines WW	2201 George Flagg Pkwy	Des Moines	IA	50321		0.5
Captain	Kangaroo	City of Ames	300 E. 5 <sup>th</sup> St.	Ames	IA	50010	0.5	
Frank	Sinatra	Cedar Rapids Water Dept.	1111 Shaver Road NE	Cedar Rapids	IA	52402	0.5	
Mahalia	Jackson	City of Forest City	P.O. Box 346	Forest City	IA	50436	0.5	
Tony	Bennett	OMI, Inc.	809 W. Summit	Maquoketa	IA	52060	0.5	
Willie	Mays	U.S. Filter	1234 630 <sup>th</sup> St	Storm Lake	IA	50588	0.5	
Roger	Marris	Des Moines WW	2201 George Flagg Pkwy	Des Moines	IA	50321	0.5	
Michael	Jordan	City of Ames	300 E. 5 <sup>th</sup> St	Ames	IA	50010	0.5	
Lawrence	Welk	PeopleService, Inc.	7850 NW 128 <sup>th</sup> St	Grimes	IA	50111	0.3*	
Clark	Kent	Hiawatha Water Dept.	81 Emmons St	Hiawatha	IA	52233	0.5	
Dale	Carnegie	Ft. Madison Water Plant	811 Avenue E	Ft. Madison	IA	52627		0.4*
Jackie	Gleason	City of Ft. Madison	811 Avenue E	Ft. Madison	IA	52627	0.5	
Chet	Atkins	City of Indianola	P.O. Box 356	Indianola	IA	51025	0.5	
Les	Paul	Council Bluffs Water Works	2000 N. 25 <sup>th</sup> St	Council Bluffs	IA	51501	0.5	
Mary	Ford	City of Dubuque	1902 Hawthorne St	Dubuque	IA	52001	0.5	
Ed	Sullivan	City of Jesup	1214 Main St	Jesup	IA	50648	0.5	

\* Hours actually attended

### Multi-day, Multi-track Attendance Roster\*

[illegible]

\* Courtesy of Iowa Association of Municipal Utilities

APPENDIX G  
**CEU COURSE GUIDANCE LISTS**  
IDNR Approved CEU Course Guidance Lists  
10/22/03

The following is a list of approved and disapproved training topics prepared by IDNR in cooperation with the Iowa Joint Operator Certification and Training Coordination Committee for Certified Water and Wastewater Operators. The topics listed as approved (Yes) are considered to be directly related to the subject matter of the particular certificates indicated; Drinking Water Treatment (WT), Water Distribution (WD), Wastewater Treatment (WWT) and Wastewater Collection (WWC).

- A. Continuing Education Units (CEUs) must be directly related to the subject matter of the operator certificate to which the credit is being applied.
- B. IDNR has determined that courses / topics listed as approved on the attached *IDNR Approved CEU Course Guidance Lists* are related to the subject matter and "Need To Know" for the operator certificates indicated.
- C. It is the operator's responsibility to confirm that a course is eligible for CEU credit towards renewal of an Iowa operator certificate. If you plan to take or are taking a course that may not qualify for CEU credit, you should ask the instructor or training provider for clarification.
- D. The Iowa Department of Natural Resources (IDNR) expects all operators to take balanced CEU training that is directly related to improving their knowledge, skills and abilities, including training on new or innovative technology. The department will not accept CEU credit for repeating any course in the same two-year certification period (renewal cycle).

The content of a course is determined by its agenda topics. For example, Regional operator meetings attended in two consecutive years would both count towards meeting the CEU requirement since the agendas are different. However, repeating a course on proper filter operation, where the agenda topics and course content are basically the same, would not count toward meeting the CEU requirement during a single renewal period.

Exceptions may be made for single topics in a multi-topic program or, as an example, separate 1-day courses on "Corrosion Control", one for drinking water and one for wastewater. For questions about other exceptions on CEU credit contact the IDNR at 515-725-0284 or e-mail at [laurie.sharp@dnr.state.ia.us](mailto:laurie.sharp@dnr.state.ia.us).



**Process/Quality Control Topics Approved Specifically for:**

<b>Public Water Supply Operators Only</b>	<b>WT</b>	<b>WD</b>
Aeration	Yes	No
Arsenic Removal	Yes	No
Aquifer Storage and Recovery	Yes	Yes
Bacteriological Sampling Procedures	Yes	Yes
Chemical Storage and Handling	Yes	No
Coagulation and Flocculation; Chemistry, Treatment Options, Process Control	Yes	No
Corrosion Control	Yes	Yes
Cross-connection, Backflow Prevention	Yes	Yes
Dechlorination	No	Yes
Disinfection; Chemistry, Agents, Efficacy, Equipment, Process Control	Yes	No
Disinfection of New Mains and Repairs	No	Yes
Disinfection of Water Storage Facilities	Yes	No
Distribution System; Mains, Taps, Maintenance, Repairs	No	Yes
Drinking Water Standards and Regulations	Yes	Yes
Filtration; Media, Equipment, Process Control, Optimization	Yes	No
Fire Flow Testing	No	Yes
Flow Measurement; Open Channel, Pipeline, Equipment, Calibration	Yes	No
Fluoridation	Yes	No
Flushing, Pigging, and Swabbing	No	Yes
Groundwater Basics; Aquifers	Yes	Yes
Hydrants, Valves, Exercising Programs	No	Yes
Iron and Manganese Removal; Occurrence, Chemistry, Treatment Options	Yes	No
Leak Detection/Water Audits	No	Yes
Mapping, Locating, Tracer Wire	No	Yes
Membrane Processes; Micro-filtration, Reverse Osmosis (RO), Electro Dialysis Reversal (EDR)	Yes	No
Metering; Types, Sizing, Maintenance, Testing, Automated Meter Reading (AMR)	No	Yes
Nitrate Removal	Yes	No
Ozonation	Yes	No
Pesticide and Herbicide Reduction	Yes	No
Process Optimization and Upgrade	Yes	No
Residuals Disposal	Yes	No
Sampling and Testing for Process Control	Yes	No
Sedimentation/Clarification; Equipment, Process Control	Yes	No
Service Line Thawing	No	Yes
Services Lines and Curb Box Maintenance	No	Yes
Softening by Cation Exchange; Chemistry, Treatment Options, Process Control	Yes	No
Softening by Chemical Precipitation; Chemistry, Treatment Options, Process Control	Yes	No
Storage; Coatings, Inspection, Maintenance and Repair	No	Yes
Storage; Plant and Distribution System	Yes	No
Surface Water Treatment Problems	Yes	No
Taste and Odor Control	Yes	No
Trenchless Construction; Pipe Bursting	No	Yes
Water Source Characteristics	Yes	Yes
Well Drilling and Development	Yes	Yes
Well Maintenance and Rehabilitation	Yes	Yes
Well Operation, Yield, Drawdown, Etc.	Yes	Yes
Wellhead and Surface Water Protection	No	Yes
Zebra Mussel Control	Yes	No

**Process/Quality Control Topics Approved Specifically for:**

<b>Wastewater Treatment Operators Only</b>	<b>WWT</b>	<b>*WWC</b>
Advanced/Tertiary Processes such as Nutrient Removal, Ammonia Removal, Ultra-solids Removal	Yes	No
Alternative Technologies	Yes	No
Biological Treatment by Attached Growth, Fixed Film Systems such as Trickling Filters, RBCs, Equipment, Process Control	Yes	No
Biological Treatment by Suspended Growth Systems such as Activated Sludge, SBRs, Equipment, Process Control	Yes	No
Biological Treatment by Coupled Systems such as Trickling Filter/Activated Sludge (TF/AS), Trickling Filter/Solid Contact (TF/SC)	Yes	No
Biosolids Disposal/Land Application, Regulations, Equipment, Process Control, Records, Monitoring	Yes	No
Corrosion Control	Yes	Yes
Cross-connection, Backflow Prevention	Yes	Yes
Disinfection;	Yes	No
Flow Measurement; Open Channel, Pipeline, Equipment, Calibration	Yes	Yes
Flushing, Pigging, and Swabbing	No(*yes)	Yes
Grease Removal and Disposal; Equipment, Process Control	Yes	No
Grit Removal and Disposal; Equipment, Process Control	Yes	No
Inflow / Infiltration in Sanitary Sewers	No(*yes)	Yes
Industrial Wastes, Pretreatment	Yes	Yes
Lagoons; Facultative, Anaerobic, Aerated, Function, Process Control	Yes	No
Lift Stations	No(*yes)	Yes
Odor Control	Yes	Yes
Overflows and Bypass Control	No(*yes)	Yes
Process Optimization and Upgrade	Yes	No
Sampling and Testing	Yes	Yes
Sand Filters	Yes	No
Screens, Grinders; Equipment, Process Control	Yes	No
Sedimentation; Equipment, Process Control	Yes	No
Service Lines and Connections	No(*yes)	Yes
Sewers and Manholes; Materials, Maintenance, Tapping, Repairs	No(*yes)	Yes
Sewer and Manholes; Inspection, televising (TV), Cleaning	No(*yes)	Yes
Sludge Treatment; Anaerobic, Aerobic, Thickening, Dewatering, Equipment, Process Control	Yes	No
Sources and Characteristics	Yes	Yes
Trenchless Technologies, Pipe Bursting	No(*yes)	Yes
Wetlands for Wastewater Treatment	Yes	No

**Note:** (\*yes) indicates that as long as WWC certification is voluntary, all Approved topics on both the WWT and WWC lists are eligible for CEU credit for either WWT or WWC certification and upgrade.

**General Topics Approved for All Classifications: WT, WD, WWT and WWC.**

Basic Electricity	Math for Operations
Basic Hydraulics	Microbiology
Blowers, Compressors, Generators, HVAC	Motor Control Centers
Chemical Feed Systems	Pipes, Valves, Fittings
Chemistry	Programmable Logic Controllers (PLCs)
Computer Use in O&M	Pumping Stations
Electrical Controls/SCADA	Pumps and Motors
Instrumentation	Standby Facilities

## Topics Approved for Only Specific WT, WD, WWT, or WWC Classifications

<b>Safety in O &amp; M</b>	WT	WD	WWT	WWC
Backhoe Operator	No	Yes	Yes	Yes
Blood-borne Pathogens	No	No	Yes	Yes
Chains, Slings, Wire Rope	Yes	Yes	Yes	Yes
Chlorine Safety	Yes	Yes	Yes	No
Confined Space Awareness	Yes	Yes	Yes	Yes
Excavations, Competent Person	No	Yes	Yes	Yes
Excavations, Trenching/Shoring	No	Yes	Yes	Yes
Haz. Com./Right-to-Know	Yes	Yes	Yes	Yes
Iowa One Call	No	Yes	No	Yes
Lab Safety	Yes	No	Yes	No
Ladder Safety	Yes	Yes	Yes	Yes
Lockout/Tagout	Yes	Yes	Yes	Yes
Personal Protective Equipment	Yes	Yes	Yes	Yes
Respiratory Protection	Yes	No	Yes	Yes
Safe Handling of Materials	Yes	Yes	Yes	Yes
Traffic Control/Work Zone Safety	No	Yes	Yes	Yes
<b>Administration / Management</b>				
Capacity Management O&M (CMOM)	No	No	Yes	Yes
Compliance—Regs, Permits, SDWA, CWA, IDNR Update	Yes	Yes	Yes	Yes
Construction/Inspection/Design Build	Yes	Yes	Yes	Yes
Customer Relations, P.R., Media, Public Notification	Yes	Yes	Yes	Yes
Customer Water Quality Inquiries	Yes	Yes	No	No
Emergency, Security, Vulnerability	Yes	Yes	Yes	Yes
Energy Efficiency	Yes	Yes	Yes	Yes
Finance, Budget, Viability, Rates	Yes	Yes	Yes	Yes
Financing Programs, Federal and State	Yes	Yes	Yes	Yes
Inflow / Infiltration in Sanitary Sewers	No	No	Yes	Yes
Industrial Wastes, Pretreatment	No	No	Yes	Yes
Legal Issues for Water Utilities	Yes	Yes	No	No
Operator Certification	Yes	Yes	Yes	Yes
Planning	Yes	Yes	Yes	Yes
Point of Use, Point of Entry Devices	Yes	Yes	No	No
Quality Circles, Continuous Process Improvement	Yes	Yes	Yes	Yes
Records and Reports, CCR	Yes	Yes	Yes	Yes
Sanitary Surveys, Inspections	Yes	Yes	Yes	Yes
Service Shutoff	Yes	Yes	No	No
Statistical Process Control Techniques	Yes	Yes	Yes	Yes
Telecom on Water Towers	Yes	Yes	No	No
Utility Locating, Geographic Information Systems (GIS)	Yes	Yes	Yes	Yes
Water Conservation	Yes	Yes	No	No
Watershed Protection, Surface and Groundwater	Yes	Yes	No	No

## Topics Not Approved for Any Classification

### General

All Math as Math	Basic Computer
Autobody Painting	Chain Saw; Fork Lift

### Personal Health & Safety

AIDS	First Aid
Alcohol	OSHA
Back Power	Safety and Health Plans
CPR	Slips, Trips, Falls
Defensive Driving	Traffic Control (general)
Drugs	Workplace Safety
Ear, Eye	Workplace Violence
Fire Safety in the Workplace	

### Administration / Management

Conflict Management	Right-to-Know
Diversity	Risk Management
Exam Prep and Taking Practice Exams	Sexual Harassment
IPERS	Stress Management
Leadership	Storm water Separation and Control
Motivational	Time Management
Orientation	Unions
Public Hearings	Workers' Comp.
Pending Legislation	Workers' Rights

## **Appendix H**

### **Recording Agencies Electronic Reporting Specifications**

#### **Introduction**

The new IDNR Operator Certification database system (OPCERT) includes the capability to accept a simple electronic data transfer format that will allow all recording agencies to submit schedules and rosters in a simple electronic format that will facilitate the accurate and quick update to the OPCERT database. **IDNR will work with all recording agencies to facilitate a timely and accurate data transfer.**

#### **New Data Structure**

The OPCERT system data structure keeps track of the following entities associated with the CEU process:

- Training Providers – The name and contact information about the entities providing the CEU credits.
- Schedules of Classes – The sessions provided by the training providers.
- Rosters – The system maintains rosters of the operators or potential operators that attend the sessions.
- CEU's – The CEU's earned by attending the class.

This structure provides IDNR with a tool that meets the requirements of the current environment and provides additional function that will allow functional growth in the future, including possible online reporting of schedules and results by the training providers.

#### **Test submittal**

IDNR maintains a test version of the database which will be used to assist the recording agencies to correctly format their data exchange file and test it against the OPCERT database.

#### **Data Definition and File Layout**

The following are the definitions of the data elements that must be included in the fixed length text data file.

Field	Format	Position	Description
Session ID	6 Numeric	1 – 6	Identifies a single session that provides a specific number of CEU's for an operator in attendance. A single session will have multiple operators in attendance.
Session Date	MM/DD/YYYY	8 – 17	The date the class was held. This format allows for only a single date to be entered.
Session Description	30 Alpha Numeric	19 - 48	A brief description of the class subject matter.
Session City	20 Alpha Numeric	52 - 71	The city the session was held in.
Contact Hours	9999999.99	73- 82	Contact Hours
CEU	99999.99	84 - 91	Credits earned by each operator in attendance.
CEU Type	2 Alpha Numeric	93 – 94	The certificate type the session addressed. Currently the system is limited to the following CEU types: <ul style="list-style-type: none"> <li>• WT Water Treatment</li> <li>• WD Water Distribution</li> <li>• GA Grade A Water</li> <li>• WW Wastewater Treatment</li> <li>• WL Wastewater Lagoon</li> <li>• WC Well Contractors</li> <li>• PI Pump Installers</li> </ul>
SSN	999999999	97 - 105	The identification of the operator. Required to identify the operator record in the database.
Last Name	20 Alpha Numeric	107 - 126	Assists identification of the operator.
First Name	15 Alpha Numeric	128 – 142	Assists in the identification of the operator.

The format of the file will be a fixed length text file. This is the simplest and most common file format that can be created from any database or even from a spreadsheet if care is taken with the cell formats. The following is a sample of a valid file.

219000	06/19/2003	25	HR.	BASIC	WATER TREATMENT	CEDAR RAPIDS	0000028.20	00002.50	WT
482845599	WEBER				MARK				
219000	06/19/2003	25	HR.	BASIC	WATER TREATMENT	CEDAR RAPIDS	0000028.20	00002.50	WT
483682656	SCHLIEVERT				MARK				
219000	06/19/2003	25	HR.	BASIC	WATER TREATMENT	CEDAR RAPIDS	0000028.20	00002.50	WT
483728512	SAGER				MIKE				
219000	06/19/2003	25	HR.	BASIC	WATER TREATMENT	CEDAR RAPIDS	0000028.20	00002.50	WT
483940324	SMITH				KURT				
241189	04/03/2003			IAMU:EXCAVATION/COMPETENT PERS		DECORAH	0000006.00	00000.60	WW
477862306	CAROLAN				JEREMY				
241189	04/03/2003			IAMU:EXCAVATION/COMPETENT PERS		DECORAH	0000006.00	00000.60	WW
484885095	IHDE				TODD				
241189	04/03/2003			IAMU:EXCAVATION/COMPETENT PERS		DECORAH	0000006.00	00000.60	WW
485623878	REED				GARY				
241190	04/04/2003			DMWW:AMERICAN BACKFLOW PREVENT		AMANA	0000005.50	00000.50	WD
349480945	CUNNINGHAM				SCOTT				
241190	04/04/2003			DMWW:AMERICAN BACKFLOW PREVENT		AMANA	0000005.50	00000.50	WD
469641717	FOLKEDAHL				VERN A				
241190	04/04/2003			DMWW:AMERICAN BACKFLOW PREVENT		AMANA	0000005.50	00000.50	WD
478905340	WINTERS				TROY				
241190	04/04/2003			DMWW:AMERICAN BACKFLOW PREVENT		AMANA	0000005.50	00000.50	WD
479601934	STONEKING				LYMAN S				
241190	04/04/2003			DMWW:AMERICAN BACKFLOW PREVENT		AMANA	0000005.50	00000.50	WD
479663392	MCCANN				STEVE L				

This file would create three separate schedules for the dates 6/19 with four operators in attendance, 4/3 with 3 attendees and 4/4 with 5 attendees.

An error report is created if the operator cannot be identified by the SSN so the operators and their credits are not lost.